

Towards a framework of sustainability indicators for ‘communication for development and social change’ projects

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Abstract

This article presents an overview of the emergence of sustainability themes in communication for development and argues that there is an urgent need for a framework of sustainability indicators for communication for development and social change projects around the world. It fills a crucial gap in the growing body of literature by first synthesizing the most relevant data currently produced by global and local institutions, NGOs, UN-based organizations, academics, and professionals regarding assessment indicators for development projects, and second, produces a framework of sustainability indicators that can be used by a wide variety of people in the field to assess the sustainability of existing projects and the sustainable potential of planned ones. It then tests the framework in two representative cases.

Keywords

communication for social change, impact assessment, measurement indicators, Nepal, project evaluation, Sierra Leone, sustainability

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Putting people at the center of development is much more than an intellectual exercise. It means making progress equitable and broad-based, enabling people to be active participants in change and ensuring that current achievements are not attained at the expense of future generations. Meeting these challenges is not only possible – it is necessary. And it is more urgent than ever. (UNDP, 2010: 12)

In a recent attempt to critically review the many challenges and issues associated with developing and implementing indicators of communication for development and social change (CDSC) impacts, prepared for a United Nations Inter-Agency and Experts' Consultation on Research, Monitoring and Evaluation in Communication for Development (UNICEF, 2010), Lennie and Tacchi (2010) once again confirm the substantial gap between the theory and practice of CDSC: 'The evaluation of Communication for Development (C4D) needs to be based on an appropriate combination of qualitative and quantitative techniques, complementary approaches and triangulation, and recognition that different approaches are suitable for different issues and purposes. However, there is often a lack of appreciation, funding and support for alternative, innovative Research, Monitoring and Evaluation (RME) approaches among management and mainstream M&E specialists in the UN. Commitment to participatory processes is often rhetoric rather than meaningful or appropriate practice. Funders tend to place greater value on narrow, quantitative measurement-oriented approaches and indicators that do not sufficiently take the complexity of culture and the context of C4D and development initiatives into account' (Lennie and Tacchi, 2010: 4).

While decision- and policy-makers are increasingly 'charmed' by participatory and bottom-up approaches, they nonetheless continue to believe that vertical, top-down planning, mainly based on the use of (old and new) media, remains a more effective way to 'deliver' social change (as further argued in Servaes, 2007). They often use the lack of 'empirical evidence' (read: quantitative measurements) as an 'excuse' for their lack of support, while conveniently ignoring some of the findings and recommendations published in-house. For instance, a comprehensive assessment commissioned and published by the World Bank (Inagaki, 2007) reaches the following sobering conclusions:

First, communication techniques are not neutral; some techniques and communication channels work better than others under different circumstances. Mass media messages effectively contributed to the adoption of new behavior and attitudinal models, as posited by the original modernization theorists, in certain situations, but this communication model was found ineffective in comparison to different communication models under other conditions (e.g., interpersonal communication). Second, making the latter point more complex, general categories such as mass media and interpersonal communication can potentially conceal varying effects among specific channels within each mode, such as one-to-one interpersonal contacts *versus* group discussion, broadcast media *versus* printed materials. Third, different communication channels interact with one another, and this interaction can form a complex network of communication effects encompassing multiple, direct and indirect paths of influence. When measured alone a mass media message may have negligible direct impacts, but the same message can have significantly greater impacts when mediated through other channels of communication, such as interpersonal communication and group communication.

These lessons warn against making generalizations about the effectiveness of a given approach or channel, and call the attentions of communication specialists and researchers to contextual factors. (Inagaki, 2007: 34–35)

Inagaki also points to a number of blind spots in the recent empirical literature; the ‘most invisible . . . is the effort to understand the long-term effects of communication’ (Inagaki, 2007: 54) or the sustainability of communication impacts: ‘In our sample, only four studies offered any type of insights into the long-term impacts of communication interventions, and even among these studies impacts going beyond the immediate timeframe of the project are discussed through anecdotal accounts rather than systematic analyses. Two factors seem to be associated with the lack of investigations into sustainable communication interventions. First, most of the project implementation schedules are too short if one tries to gauge long-term impacts during or within the timeframe of the projects. The average length of the projects evaluated in the reviewed studies is two years, and the active project period in a little over half of these projects had lapsed in one year or less. Some studies openly admit that the impacts of communication were measured immediately after the project termination, and that the short duration between the intervention and the measurement might allow researchers to report only short-term impacts. Second, recalling the issue raised in the methodological notes for the present work, many of the researchers authoring academic evaluations also play the role of communication consultants within the projects they subsequently evaluate. This practice creates a challenge for these researchers to maintain an objective perspective that transcends the original scope of the projects. Similarly, a number of published empirical research studies are likely to be based on the data sets that had been collected and analyzed during the evaluation phase of the project cycle. The studies in our sample indicate very little evidence of independent data collection’ (Inagaki, 2007: 54).

After a brief overview of the literature, an attempt to define sustainability, and a sample of available evaluation and assessment models, we attempt to generate our own framework of sustainability indicators which then will be assessed against two representative projects: the Sierra Leone Health Sector Reconstruction and Development Project, a World Bank funded project designed to develop the most essential functions of the country’s health system, and the ‘Finding a Voice’ project, a collaboration between Queensland University of Technology, University of Adelaide, Swinburne University, UNESCO, UNDP, and the Australian Research Council, whose goal was to create a network of 15 local community media and ICT initiatives across India, Nepal, Sri Lanka, and Indonesia.

What is sustainable development?

In the last 30 years, *sustainable development* has emerged as one of the most prominent development paradigms. For many scholars, sustainable development implies a participatory, multi-stakeholder approach to policy-making and implementation, mobilizing public and private resources for development and making use of the knowledge, skills, and energy of all social groups concerned with the future of the planet and its people. Within this framework, communication and information play a strategic and

fundamental role by: (a) contributing to the interplay of different development factors, (b) improving the sharing of knowledge and information, and (c) encouraging the participation of all concerned.

At least two perspectives on sustainable development are on offer: a 'Western' perspective represented by the Brundtland Commission, and an 'Eastern' or Buddhist perspective as presented by the Thai philosophers and social critics Sulak Sivaraksa and Phra Dhammapidhok. However, the question needs to be raised whether there is a meeting point?

A 'Western' perspective: The Brundtland Commission

An interest in sustainable development gained momentum at the convening of the World Commission on Environment and Development (WCED) – in short: Brundtland Commission – at the United Nations in 1983 to address growing concern 'with the problems of protecting and enhancing the environment'. The 1987 report by the Brundtland Commission, *Our Common Future*, was one of the first cohesive reports to consider economic and social development in terms of sustainability. They defined sustainable development as 'development which meets the needs of the present without compromising the ability of future generations to meet their own needs' (Elliott, 1994: 4). Three dimensions are generally recognized as the 'pillars' of sustainable development: economic, environmental, and social. Core issues and necessary conditions for sustainable development as identified by the WCED are population and development; food security; species and ecosystems; energy; industry; and the urban challenge.

In 1992, Agenda 21, a plan of action to produce international and national sustainable development strategies, was adopted by more than 178 governments at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, 3–14 June 1992. This led to the creation of the Commission on Sustainable Development (CSD) later that year to ensure effective follow-up of UNCED. In 2002, the UN World Summit on Sustainable Development was convened to assess the effectiveness of Agenda 21. The five areas discussed at this conference were (1) water and sanitation, (2) energy, (3) human health, (4) agricultural productivity, and (5) biodiversity and ecosystem management. Pursuit of this kind of sustainable development requires:

- A political system that secures effective citizen participation in decision-making;
- An economic system that provides for solutions for the tensions arising from disharmonious development;
- A production system that respects the obligation to preserve the ecological base for development;
- A technological system that fosters sustainable patterns of trade and finance;
- An administrative system that is flexible and has the capacity for self-correction;
- A communication system that gets this organized and accepted by all parties concerned at all levels of society.

It is unclear, however, what has gone beyond ratified agreements and stated commitments. Shah (2005) notes that since the commitments made in 1992 little has changed in

terms of global poverty. The rising popularity of the term through conferences, protocols, and agreements has ironically blurred the definition of sustainability and made the understanding of it vague (Hull, 2008). Hull suggests that a Western initiated model of development has emphasized economic growth through industrialization and technological growth. A huge deterrent to sustainability is *global turbo capitalism*, where 'society serves the economy and not vice versa' (Hull, 2008: 74). Gawor (2008) suggests that sustainable development should be understood as an alternative to 'development megatrends of the present, including globalization processes denoting the need to change the previous values, which contributed to the rise of Euro-American industrial-technological civilization' (Gawor, 2008: 131). Gawor suggests that anti-globalization movements, including activism against the World Trade Organization and International Monetary Fund, are a cry for a new alternative (see also Held and McGrew, 2007).

An 'Eastern' Buddhist perspective

Phra Dhammapidhok, a famous Buddhist monk and philosopher, points out that sustainable development in a Western perspective lacks the human development dimension (Payutto, 1998). He states that the Western ideology emphasizes 'competition'. Therefore the concept of 'compromising' is used in the above WCED definition. Compromising means lessen the needs of all parties. If the other parties do not want to compromise, you have to compromise your own needs and that will lead to frustration. Development won't be sustained if people are not happy.

He consequently reaches the conclusion that the Western perception of and road to sustainability, based on Western ethics, leads development into a cul-de-sac.

From a Buddhist perspective, *sustainability concerns ecology, economy and evolvability*. The concept 'evolvability' means the potential of human beings to develop themselves into less selfish persons. The main core of sustainable development is to encourage and convince human beings to live in harmony with their environment, not to control or destroy it. If humans have been socialized correctly, they will express the correct attitude towards nature and the environment and act accordingly. He argues that: 'A correct relation system of developed mankind is the acceptance of the fact that human-being is part of the existence of nature and relates to its ecology. Human-being should develop itself to have a higher capacity to help his fellows and other species in the natural domain; to live in a harmonious way and lessen exploitations in order to contribute to a happier world' (Payutto, 1998: 189).

This holistic approach of human relates to cultural development along three dimensions:

- Behaviors and lifestyles which do not harm nature;
- Minds in line with (Eastern) ethics, stability of mind, motivation, etc. to see other creatures as companions;
- Wisdom includes knowledge and understanding, attitude, norms, and values in order to live in harmony with nature.

Different perspectives (such as the TERMS approach developed in Thailand that builds on Buddhist principles and the 'efficiency economy' concept outlined by King

Bhumibol – see Servaes and Malikhao, 2007; Supadhiloke, 2010) have, over the years, influenced the holistic and integrated vision of sustainable development. Khampa (2009), Supadhiloke (2010) and Sivaraksa (2010) also explore the Bhutanese Gross National Happiness Index as a viable way to sustainable development and a realistic alternative to the Western concept. Sivaraksa (2010: 66) lists the following indicators of happiness:

- The degree of trust, social capital, cultural continuity, and social solidarity;
- The general level of spiritual development and emotional intelligence;
- The degree to which basic needs are satisfied;
- Access to and the ability to benefit from health care and education; and
- The level of environmental integrity, including species loss or gain, pollution, and environmental degradation.

Sivaraksa argues that these indicators need to be further operationalized. A task which Khampa (2009) is currently involved in on behalf of the Bhutanese government. The key is 'to create indicators that become instruments of liberation' (Sivaraksa, 2010: 67).

Nevertheless, a unifying theme is that there is no universal development model. Development is an integral, multidimensional, and dialectic process that differs from society to society, community to community, context to context. In other words, each society and community must attempt to delineate its own strategy to sustainable development starting with the resources and 'capitals' available (not only physical, financial and environmental but also human, social, institutional, etc.), and considering needs and views of the people concerned.

A 'middle way'?

It may be relevant to emphasize that the above 'Eastern' perspective is not 'uniquely' Eastern as it has been promoted in other parts of the world as well. For instance, in the late 1970s, the Dag Hammarskjöld Foundation advocated three foundations for '*another or sustainable development*: (a) Another Development is geared to the satisfaction of needs, beginning with the eradication of poverty; (b) Another Development is endogenous and self-reliant; and (c) Another Development is in harmony with the physical and cultural ecology (Nerfin, 1977).

More recently, the World Commission on Culture and Development, chaired by Javier Pérez de Cuéllar (1995), started from similar assumptions. It argued that development divorced from its human or cultural context is growth without a soul. This means that culture cannot ultimately be reduced to a subsidiary position as a mere promoter of economic growth. The report goes on by arguing that 'governments cannot determine a people's culture: indeed, they are partly determined by it' (De Cuéllar, 1995: 15).

The basic principle should be 'the fostering of respect for all cultures whose values are tolerant of others. Respect goes beyond tolerance and implies a positive attitude to other people and a rejoicing in their culture. Social peace is necessary for human development: in turn it requires that differences between cultures be regarded not as something alien and unacceptable or hateful, but as experiments in ways of living together that contain valuable lessons and information for all' (De Cuéllar, 1995: 25).

The Human Development Report 2003 and the United Nations Millennium Declaration (2000) advocate these principles of *cultural liberty and cultural respect in today's diverse world* for similar reasons: 'The central issue in cultural liberty is the capability of people to live as they would choose, with adequate opportunity to consider other options' (UNDP, 2004: 17). The United Nations Millennium Declaration promotes the following principles and values: *freedom, equality, solidarity, tolerance, respect for nature, and shared responsibility* (see Millennium Development Goals Report, 2009).

Therefore, in contrast with the more economic and politically oriented approach in traditional perspectives on sustainable development, the central idea in alternative, more culturally oriented versions is that there is *no universal development model which leads to sustainability at all levels of society and the world*, that development is an integral, multi-dimensional, and dialectic process that can differ from society to society, community to community, context to context (Servaes, 1999). In other words, each society and community must attempt to delineate its own strategy to sustainable development. This implies that the development problem is a relative problem and that no one society can contend that it is 'developed' in every respect. Therefore, we believe that *the scope and degree of interdependency must be studied in relationship with the content of the concept of development*. Where previous perspectives did not succeed in reconciling economic growth with social justice, an attempt should be made to approach problems of freedom and justice from the relationship of tension between the individual and the society, and limits of growth and sustainability are seen as inherent to the interaction between society and its physical and cultural ecology.

Three subdivisions

The concept of sustainable development has been further addressed from at least three perspectives: (a) as a process, (b) at different levels, and (c) with different contents.

Open, inclusive, and participatory communication and information processes are fundamentals for successful, sustainable development (Wilson, 2007). Furthermore, 'when communities articulate their own agendas, they are more likely to achieve positive changes in attitudes, behaviors, and access to opportunities' (Reardon, 2003: 36). Wilson offers four key elements that will promote sustainable development: 'Equitable and inclusive political processes, national and international governance processes that are effective, responsive, and accountable, supporting engaged citizens and dynamic civil society, and generating inclusive economic growth, sustainable livelihoods and transparent, efficient markets' (Wilson, 2007).

Chen (2001) and Tremblay (2007) indicate that the goal of sustainable development is to pursue 'regional balanced-development' suggesting that a large challenge is to strike harmony between the environment and the expansion of science and technology. On the one hand, protection of resources is key, however fair global distribution of resources is contradictory with the structure of competition, which encourages survival of the fittest with a privileged few gaining access to resources. The goal of sustainability should not be to substitute human-made or artificial capital by natural resources but to have each complement the other. This is what is known as *strong sustainability* (Horbach, 2005).

Skowrowski (2008: 119) calls for 'environmentally friendly socio-economic development that takes account of the finite nature of environmental resources and

possibilities'. He distinguishes between culture at its essence, and material forms of culture, suggesting that civilizational culture need not be based on mastering the natural environment and shaping nature. The *two basic approaches to sustainable development* are first, approaching a balance or reconciliation of traditional economic growth with ecological and environmental conditionings, and second, a philosophy or ideology that conceptualizes civilization in a holistic manner.

Mannberg and Wihlborg (2008) acknowledge that global and local visions of sustainability are often unaligned. They suggest that the root of SD is in fact in *local*, well-functioning planning processes that are decentralized, and grassroots. They used the concept of communicative planning to suggest that a socially sustainable society is one where participation is part of planning processes. 'Communicative planning is characterized by a view of planning as a long-term process in which the focus lies not only on the planning object, but also on the process as such and on communication rather than calculations' (Mannberg and Wihlborg, 2008: 36). It is *participation* that allows sustainability at the local level, where locals are part of the process of defining what is sustainable for them.

Indicators for impact assessment

The literature on research, monitoring, and evaluation (RME) is extensive and diverse. A subset concentrates on 'indicators', which could be further subdivided in a number of ways: such as (a) indicators of CDSC impacts, (b) indicators of media impacts, (c) indicators for development programs, (d) and participatory indicators of CDSC programs; *or* (a) baseline indicators, (b) process indicators, (c) intermediate indicators, and (d) long-term/outcomes/impacts indicators (Webb and Elliott, 2002). We have listed some of the most important references in the Bibliography (see especially, Bamberger, 2009; Bamberger et al., 2010; Becker, 2002; Booth and Lucas, 2002; Burgess, 2010; Catley et al., 2007; Danida, 2005; Puddephat, 2007; Puddephat et al., 2009; Solervicens, 2007; UNESCO, 2008a; Whaley et al., 2010).

The most popular in the field of CDSC seem to be the so-called indicators of media impacts. For instance, studies that rank countries by media freedom figure prominently in civil liberties debates, aid programming, foreign policy decisions, and academic research. The three most widely cited indexes are the ones compiled by Freedom House, the International Research and Exchanges Board (IREX), and Reporters Without Borders (RSF in its French initials) (see Burgess, 2010).

Claims of Western bias in these studies have spurred the development of new rating systems that are meant to have universal acceptance or to be tailored to the conditions of particular regions. The African Media Barometer, for instance, was devised to measure media conditions specifically in the developing nations of Africa. The UN Educational, Scientific and Cultural Organization (UNESCO), meanwhile, has devised new media development indicators that it calls culturally and politically neutral (UNESCO, 2008a). The indicators are applied only with the cooperation of the country's government and the participation of commercial and civil society groups. The UNESCO study does not produce numerical scores or country-by-country rankings.

Other analysts, meanwhile, feel that the main problem with the existing surveys is a perceived focus on 'old media' such as newspapers, radio, and TV. As the Internet

continues to expand and billions of people acquire mobile telephones with text messaging capabilities, these analysts say, new indicators are needed to measure digital media's impact. While Freedom House and RSF are both working to integrate new media into their studies; at the same time, other groups are working towards indexes aimed exclusively at new media.

Furthermore, Lennie and Tacchi (2010) claim that standard indicators (such as the above) are unable to capture complex realities and relationships: 'They can be useful ways of measuring change but not of capturing the reasons behind social change. In C4D, and in particular the Communication for Social Change approach, indicators should be developed through dialogue and negotiation between key participants, so that they are chosen based on local assessments of what participants want to know and why, and they are more realistic and useful. While quantitative indicators are emphasized in mainstream ME approaches, for C4D they often need to be qualitative to be most effective and appropriate. An alternative systems approach requires indicators that are flexible and encompass complexity, or, the use of alternatives to indicators such as stories of significant change and "verifying assumptions" (Lennie and Tacchi, 2010: 7).

Therefore we would like to introduce another way of assessing communication by using 'sustainability' as the main focus of analysis. We don't claim that the indicators we present are the only ones available. For sure, other contextual indicators – such as financial structures, levels of professionalism, and/or governance mechanisms – could also be considered and developed further. However, while frameworks with these indicators are available, we haven't yet found a framework in which 'sustainability indicators' are being used to assess communication for social change projects.

Assessing the sustainability of communication for social change

In our review of assessment criteria for measurement and evaluation of communication for development projects, we find that existing methodologies are often divided into two paradigms (FAO, 2009; Figueroa et al., 2002; Fowler, 2003): (1) an *expert-led paradigm*, where external reviewers take the lead in evaluating the sustainability of the project at hand, and (2) a *participatory paradigm*, where community leadership and/or participation is key to the evaluation process.

A *third, 'hybrid' model* may be situated between the first two models. On the one hand, it emphasizes the participation of local community; on the other, it does not open every process of evaluation and monitoring to local community members or stakeholders of a project. In the next part, we survey a range of assessment criteria currently developed from these three paradigms in order to develop our own model specifically designed to measure sustainability.

Participatory paradigm in evaluation and assessment

We selected six frameworks in the participatory paradigm: Rockefeller Foundation's 1999 framework, the UN's five principles indicators, the Communication for Social Change consortium's Participatory Monitoring and Evaluation (PM&E) framework (2005), Oxfam's Rights Oriented Programming Effectiveness (ROPE) framework,

FAO's Participatory Rural Communication Appraisal (PRCA) framework, and the Integrated Model for Measuring the Process and its Outcome (IMCFSC) framework.

In its 1999 report, the Rockefeller Foundation proposed specific indicators of C4SC. These indicators include enhanced public and private dialogue, increased accuracy of information shared in dialogue and debate, means for allowing people and communities to voice their opinions, increased leadership, and participation in agenda-setting by disadvantaged people regarding issues of concern (Rockefeller Foundation, 1999).

The UN offers a draft of indicators centered around five principles: the level of local awareness about the development program and the issues, evidence of direct impact, participation and empowerment, level of media coverage, and country capacity (UN, 2008).

The Communication for Social Change consortium (2005) established a Participatory Monitoring and Evaluation (PM&E) process to assist in the measurement of communication for social change (C4SC) initiatives. It is based on the premise that C4SC practitioners should facilitate the development of monitoring and evaluation (M&E) questions, measures, and methods *with* those most affected and involved rather than apply predetermined objectives, indicators, and techniques to measure C4SC *on* those most affected. Measurement tools must be community-based and participatory, they must be SUM: Simple, Understandable and Measurable, the tools/methods must be developed with input from people from developing countries, a menu of tools must be available not just one set of methods with no other options, and the M&E work must build upon work done to date.

Oxfam's Rights Oriented Programming Effectiveness (ROPE) is a design and evaluation tool, which shifts attention from the short to the long term. The project adopts participatory approaches, adapting to local contexts, works at multiple levels, builds accountability, promotes knowledge sharing with affected communities, and builds strategic partnerships with various constituencies including governmental bodies, private sector, and international and local NGOs (Van Hemelrijck, 2009).

FAO (2009) focuses on measuring the impact of ICT for development projects. It is the newest research among a series of FAO research on communication for development (e.g. FAO, 2001). FAO situated this research on the theoretical framework of Participatory Rural Communication Appraisal (PRCA) and Communication for Social Change (C4SC). PRCA uses the multiplicity paradigm proposed by Servaes (1999). FAO's framework includes 6 categories and 12 indicators. These categories are holistic dialogue, community and individual force, participatory decision-making, building communication platforms, change symbols, and working alliances. Every category has specific indicators with detailed methods to test every one, using both quantitative and qualitative methods.

The Communication for Social Change's Integrated Model for Measuring the Process and its Outcome (Figueroa et al., 2002) provides a new model to measure both the process and the outcome of a development project, the Integrated Model of Communication for Social Change (IMCFSC). IMCFSC describes a process where 'community dialogue' and 'collective action' work together. Community dialogue includes recognition of a problem, identification and involvement of leaders and stakeholders, clarification of perceptions, consensus on action, and an action plan. Collective actions include assignment of responsibilities, mobilization of organizations, implementation outcomes,

and participatory evaluation. Social changes were divided into two groups: individual changes and social changes. Then, they proposed a set of social change process indicators and a set of social change outcome indicators. Two characteristics of this framework attracted our attention. First, it focuses on the *process* in which social changes emerge. Second, it emphasizes communication as a *dialogue*, a keyword in the participatory paradigm.

Expert-led paradigm in evaluation and assessments

For the expert-led paradigm, we identified four frameworks: the UN's Millennium Development Goals (MDGs), UNESCO's IPDC indicators, the World Bank's Communication for Governance and Accountability Program (CommGap)'s evaluation framework for governance, and the UNESCO/UNDP Mozambique Media Development Project's framework for community radio.

In 2000, the UN established a set of goals and indicators termed the Millennium Development Goals (MDGs). These goals challenge nations to improve conditions globally by 2015. The UN identified eight focal points towards which countries should focus their efforts: eliminating extreme poverty and hunger, achieving universal primary education, promoting gender equality and empowering women, reducing child mortality, improving maternal health, combating HIV/AIDS, malaria, and other diseases, ensuring environmental sustainability, and developing a global partnership for development (UN, 2008). Although progress has been made, there remains widespread criticism of the MDGs as being too vague and Western-centered without enough debate about how to reach the goals (Amin, 2006).

One of the more comprehensive expert-led frameworks was developed by experts from media development organizations, professional associations, universities, and intergovernmental and non-governmental organizations in collaboration with UNESCO's Intergovernmental Council of the International Program for the Development of Communication (IPDC) to create indicators for measuring media development. First, five categories were created to best analyze and map the media environment. Within each category a range of key indicators specific to that category are given, along with a means to verify them. The five categories are: (1) a system of regulation conducive to freedom of expression, pluralism, and diversity of the media; (2) plurality and diversity of media, a level economic playing field, and transparency of ownership; (3) media as a platform for democratic discourse; (4) professional capacity building and supporting institutions that underpin freedom of expression, pluralism, and diversity; and (5) infrastructural capacity that is sufficient to support independent and pluralistic media (IPDC, 2008).

In 2007, the World Bank's Communication for Governance and Accountability Program (CommGap) developed an evaluation framework for governance programs to help determine the contribution communication intervention can make which can be adapted to the context of each country. Data must be obtained from four sources including population-based surveys, surveys with enterprises and companies, interviews with key informants, and legislative records.

The UNESCO/UNDP Mozambique Media Development Project sets out to determine whether community radio stations promote democracy, active involvement of

communities, and allow people to set their development agendas. They also sought to ensure that volunteer community radio producers would be able to carry out assessments by themselves beyond the project's end, thus while it is 'expert-led' it was also created with sustainability components in mind. They developed a 'barefoot assessment' methodology, named so because it was easy to apply and produce understandable results. The assessment focuses on three questions: (1) is the radio station working effectively internally and do the volunteers have contracts, rights, and clearly defined duties, (2) do the programs respond to the interests of the public and are they well-researched, culturally relevant, and considered good and effective by listeners, and finally (3) does the radio station create desired development and social change (determined by the original baseline research) within the community?

Mixed methods in assessment

The above frameworks and indicators fit different characteristics and requirements of different communication for social change projects. On one hand, we contend that participation of local community and other stakeholders are a key factor for sustainable social change. On the other, we know that some limits of PM&E, such as time and cost, may reduce the applicability of the frameworks and indicators. Through an overview of currently established assessment criteria that are expert-led, participatory, or both, we can more clearly draw from and establish our own set of sustainability indicators for future CDSC projects.

Therefore, this article claims that, as argued in Servaes (2007, 2009), both *participatory communication* (a strategy emphasis on interpersonal communication and community media) and *communication for structural and sustainable social change* (a strategy that mixes interpersonal communication, participatory communication, and mass communication) contribute to sustainable community change only.

The proposed framework of sustainability indicators

Categories and indicators

Based on the literature, the four categories for which we develop our indicators are: health, education, environment, and governance. We have selected eight indicators for each of the categories (see Table 1): actors (the people involved in the project, which may include opinion leaders, community activists, tribal elders, youth, etc.), factors (structural and conjunctural), level (local, state, regional), type of communication (behavioral change, mass communication, advocacy, participatory communication, or communication for sustainable social change –which is likely a mix of all of the above), channels (radio, ICT, TV, print), message (the content of the project, campaign), process (diffusion-centered, one-way, information-persuasion strategies, or interactive and dialogical), and method (quantitative, qualitative, participatory, or in combination). For each indicator we have developed a set of questions designed to specifically measure the sustainability of the project. For example, are the channels compatible with both the capacity of the actors and the structural and conjunctural factors?

Table 1. Categories and indicators.

Indicators	Health Education Governance Environment
Actors	
Factors	Structural Conjunctural
Level	Local National Regional
Type of communication	Behavioral Mass communication Advocacy Participatory communication Communication for social change
Channels	Face-to-face Print Radio Television ICT Telephone/ cellular phone
Process	Persuasion strategies One-way transmission Interactive dialogue
Methods	Quantitative Qualitative Participatory Mixed methods
Message	Was it developed by the community? Was it received? Was it understood?

To what extent was the process participatory and consistent with the cultural values of the community? Was the message developed by local actors in the community and how was it understood?

Framework test

In order to test our proposed framework, we applied the categories and indicators to two case studies: the Sierra Leone Health Sector Reconstruction and Development Project (HSRDP), a World Bank funded project designed to develop the most essential functions of the country’s health system; and the ‘Finding a Voice’ project, a collaboration between Queensland University of Technology, University of Adelaide, Swinburne University, UNESCO, UNDP, and the Australian Research Council, of which the goal was to create a network of 15 local community media and ICT initiatives across India, Nepal, Sri Lanka, and Indonesia.

Through this exercise, we aim to determine the feasibility and practicality of our categories and indicators, as well as determine any areas for improvement or reconsideration.

Sierra Leone Health Sector Reconstruction and Development Project

Sierra Leone is emerging from a decade of civil war, ceasing in January 2002. The goal of Sierra Leone's Health Sector Reconstruction and Development Project (HSRDP) was to refurbish the most essential functions of the health delivery system. More specific aims of the project include: (a) increasing access to affordable essential health services, (b) improving the performance of key technical programs responsible for coping with the country's major public health problems, (c) strengthening the management capacity of the health sector, and finally (d) supporting development of the private NGO sector and the participation of civil society in decision-making.

The first indicator of sustainability is the *actors*. Major actors involved in this project include: international and local NGOs, government, private providers of health services, and local community members. Supporting development of the private NGO health sector and involvement of the civil society in decision-making is highlighted as one of the four project objectives (World Bank, 2003: 2). It supports the MOHS (Ministry of Health and Sanitation) Donor/NGO Coordination Unit, involves NGOs in the annual sector review, planning exercise and in decision-making, and finances activities contracted out with NGOs and for-profit service providers. The government is also an important actor in this project. The third objective is to improve efficiency and make the health sector more responsive to the needs of the population. A main way to achieve this is to support five key services of the MOHS (i.e. human resources development; planning, monitoring, and evaluation; financial management; procurement; and donor and NGO coordination). Also, the government's particular interest in grant financing of the health and education sector has been highlighted as one of the reasons to support this project. Private health service providers are also an actor. Specifically, the project finances consultations with private medical, dental, and pharmaceutical associations and also supports regulations to promote quality of services, control tariffs, and encourage the development of private health services in solving public health issues (World Bank, 2003: 13).

Finally, although local community members are not addressed in the introduction of this project, they are involved in more detailed discussion regarding specific projects or services. For example, in the final report of environmental assessment of this project, when discussing awareness-raising regarding the management of insecticide-treated bed-nets, this project described how local community members formed bed-net committees in their own communities (Reynolds and Tommy, 2002: 24). In sum, the actors have included most of the project's stakeholders, however, to strengthen the sustainability of this project, there must be better ways of involving the local community members and addressing their specific needs.

The second indicator of sustainability is the *factors*, both structural and conjunctural. The major factor considered in this project is structural, more specifically, economic. During the time of civil war and the post-conflict period, local and international NGOs supplied generous support for the health sector in Sierra Leone. However, now that the country is no longer considered post-conflict, NGOs are withdrawing their services. This project sought to address the financial issues surrounding the overall health policies of the country; for example, the fee for service system and cost of drugs. Another factor

considered was the social, taking into account the needs of the general population, carried out through social assessment.

The third sustainability indicator is *level*, denoting the levels of government targeted in the project. The Sierra Leone project targets the local, state, and regional sectors. These targets are addressed with the objectives, identifying districts as a major level for consideration. The project sought to decentralize the public and private sectors by strengthening district health management teams. This enables health facilities to have greater capacity for management and involve the health service users in decision-making processes. Regionally, the program created five units to enforce the management functions of the health sector. These specific units were Planning, Monitoring and Evaluation, Financial Management, Procurement, Donor and NGO Coordination and Human Resources Development. By implementing this form of control, it improves performance at both the regional and state levels. Additionally, this project will address the needs of the marginalized populations by developing affordable services and strategies. So, while the project is most focused on mid-size rural districts, it is also reaching the local and regional levels through policy change and decentralization.

The fourth of our sustainability indicators is the *type of communication* used in the project. In the Sierra Leone Health Sector Reconstruction and Development Project, educational and training efforts for health workers are crucial to the project's aims of improving the performance of key technical programs. A combination of mass communication and advocacy communication allows the project to communicate practices to strengthen the capacity of Sierra Leone health workers. One tactic used is mass communication through an education campaign about the risks of waste disposal practices to the public. Through the media of radio, television, posters, leaflets, newspapers, and poster exhibitions on health care waste issues, including the risks of scavenging for used syringes and hypodermic needles, a larger public can be informed (Tommy, 2002: 16). An education campaign such as this also functions as an advocacy tool. Additionally, another advocacy tool is the training of health providers and hospital staff about the appropriate ways to dispose of hospital waste. Their responsibilities in sanitation can be considered as capacity-building mechanisms for an efficiency strategy of workers in the health industry.

The fifth of our sustainability indicators is the *communication channels* used. To evaluate the sustainability of this project, we studied whether the chosen channels are compatible with actors' capacity and structural factors (e.g. economic base). In this project, both mass communication channels, such as radio, TV, and print, and interpersonal communication channels, such as face-to-face communication, are involved. For example, when discussing awareness raising regarding the management of insecticide-treated bed-nets, TV and radio discussions were organized, posters were developed and posted in strategic locations, and regular health education sessions within the communities were conducted (World Bank, 2003: 24). In addition, interpersonal communication such as face-to-face communication took place (Reynolds and Tommy, 2002: 24, 60). Moreover, the chosen channels appear to be compatible with the actors' capacity and the structural factors of this project. For example, for government and international NGOs, TV and radio are accessible channels and the cost is acceptable for them. For the members of local communities, because of the low gross primary enrollment rate (percent of school

age population) of the actors, radio, TV, and face-to-face communications are better channels than other channels such as books and newspapers which require literacy. But further study is also needed. For example, it is important to check if the cost of radios and TV sets is acceptable for local communities, since the economic base, an important structural factor of this project, is relatively poor.

The sixth indicator is the *process of communication* that the project uses. In HSRDP's Waste Management Plan, a combination of persuasion, one-way transmission, and interactive dialogue is used. Through training, health workers and staff are taught and often persuaded to use the appropriate means of waste disposal. In these training sessions, an interactive dialogue occurs between the trainers and the trainees in order to clarify information and dialogue about efficient health care service provision. Mass communication tactics such as the use of radio, television, information pamphlets or posters detailing the risk of improper waste management and the raising of public awareness and precaution, are a mixture of persuasive and one-way transmission techniques. However, it must be noted that while participation interaction does occur between trainers and trainees in training interventions, the role of the training itself is to disseminate in an expert-led manner information to health workers. Hence, advocacy takes a larger role in training than participation of health workers in the creation of training projects.

The seventh of our sustainability indicators is the *methods*. The methods used in this project are mixed although the quantitative methods play a more important role. For example, quantitative indicators such as immunization coverage (the percentage of children aged 12–23 months immunized against diphtheria, pertussis, and tetanus), the contraceptive prevalence rate, and the percentage of deliveries assisted by a doctor, nurse or midwife are used as key performance indicators (World Bank, 2003: 2). Also, quantitative data from nationwide surveys were used as baseline data to evaluate the outcomes (World Bank, 2003: 3). At the same time, qualitative methods such as interviews were also used. For example, when doing environmental assessments, more specifically in environmental analysis, an interview method was used to explore concerns of local community members regarding the environmental impacts of the project in the four districts (World Bank, 2003: 23).

Our final indicator is the *clarity, reception, and production of the message*. In HSRDP'S Waste Management Plan, the message of appropriate waste management and disposal was developed by multiple stakeholders, including the Ministry of Health and Sanitation (MOHS), National HIV/AIDS Secretariat (NAS), Health Sector AIDS Response Group (ARG), local and foreign NGOs, as well as the private sector in Sierra Leone (Tommy, 2002: 4). The participation of multiple stakeholders in the message creation shows a collaborative process by those at the very top, as well as those at the grass-roots level. However, as the message of appropriate waste management is being created for communities not associated with these stakeholders, it cannot be said that local communities are involved in message creation, and message creation remains expert-led. While information on the project does not detail whether the message was correctly received or understood, we suggest that if this message is clearly understood by trained health workers and staff, this is therefore a sustainable means of further message dissemination to a larger public. For example, health workers will inform their patients of certain risks, putting the job of message dissemination in the hands of local health providers.

However, it is unclear what follow-up occurs after the training of health workers and community members. Follow-up by HSRDP is crucial in terms of ensuring that message transfer was successful and that health workers are implementing the new practices advocated for in the training. If this does not occur, the sustainability of training and advocacy in the long run is questionable. A recommendation for HSRDP training would be a focus on follow-up to ensure that the new health practices are being implemented by health workers and staff.

In a November 2002 report, implemented by the MOHS of Sierra Leone, it was noted that to ensure the sustainability of HSRDP, the capacity of trained and motivated workers and staff needed to be strengthened (MOHS, 2002: 11). Additionally, the Sierra Leone HSRDP aims at providing ongoing support for the improvement of performance in the health sector (World Bank, 2007: 8). An example of this ongoing support includes the strengthening of avian influenza awareness, surveillance, and preparedness, as well as onchocerciasis prevention by health workers and local communities (World Bank, 2007). The commitment to ongoing support is key to sustainable practices, as it ensures that there are long-term stakes in capacity building and the overall strengthening of the health care system in Sierra Leone.

Finding a Voice

The second project we chose to evaluate using our sustainability indicators was the Finding a Voice project, a network of 15 local community media and ICT initiatives. The project focused on the creation of computer training centers, local information web portals, Internet access with e-literacy, e-services, income generating activities, health services, and literacy classes across India, Nepal, Sri Lanka, and Indonesia. Although each specific initiative did not address our four categories as a whole, each category was addressed throughout the two years that Finding a Voice operated. The project, which ran from 2006 to 2008, was a collaboration between Queensland University of Technology, University of Adelaide, Swinburne University, UNESCO, and UNDP, with additional funding from the Australian Research Council.

Finding a Voice 'embedded' local researchers at each of the 15 sites in order to gain an increased understanding of how information and communication technologies (ICTs) can contribute to the development of marginalized communities, when they are introduced in ways that recognize local social networks and cultural contexts (see www.findingavoice.org). Researchers investigated the most effective ways of articulating information and communication networks (both social and technological) to empower poor people to communicate their 'voices' within their communities. The research takes a participatory approach, aiming to empower people through finding their own 'voice', which the project defines as: inclusion and participation in social, political and economic processes, meaning making, autonomy, and expression (Skuse et al., 2007: 5). The idea is to then build the capacity of these ICT sites by giving local researchers the skills to conduct ongoing action after the project concludes.

With regard to our first indicator, the Finding a Voice project appears to be quite sustainable. The *actors* involved in the project include a range of stakeholders such as partner organizations, local communities, ICT initiatives, and community organizations. The

'embedded', local researchers are each from the community they are researching and work for and with the ICT initiative that is being developed for the community. This leads to a more sustainable investment in the project. The data they collect are intended to illuminate local poverty issues relevant to that community. The data then help their particular media or ICT initiative to address some of the locally relevant aspects of poverty. It is important to note that the researchers were trained in a research method called *ethnographic action research* (EAR), which was developed by Western scholars in order to combine three research approaches (ethnography, participatory techniques, and action research) with project development specifically for ICT initiatives. EAR is *built into an initiative* so that it becomes an important tool for understanding and further developing the initiative in its *local context* (Tacchi et al., 2003). Thus, although the methodology was developed by people outside the local community, we could consider it sustainable because it is a model that relies on locally and culturally situated information. It is a transferable set of principles and processes for participatory research and content creation.

As for our second indicator, structural *factors* such as the culture and economy of the community appear to have been given more priority than the conjunctural factors, as each project focused on addressing the issues that constitute 'high priorities' for each local community. It seems fair to suggest, however, that improved communication facilities and their appropriate use would aid in the recovery of conjunctural factors such as unexpected environmental catastrophes like a tsunami or earthquake, and better equip the community with information regarding how to deal with a financial crisis.

The Finding a Voice project did a successful job of incorporating *local, state, and regional* planning into the development of the project. While each researcher is trained to locate the complexity of new media and ICT access and use within local cultural and social frames, it is also noted that varied political and economic contexts bear some common features (Skuse et al., 2007: 23). Finding a Voice research revealed that a lack of access to information about important resources and services is a common feature of poverty. Lack of information can increase poverty, and access to information may be far from equitable (Skuse et al., 2007: 24). Thus the project is careful to note that making ICT services available to those considered voiceless is not enough on its own (Skuse et al., 2007: 27). From a rights-based perspective on social development, rights to a voice and freedom of expression are closely linked to strengthening governance and the democratic process. In turn, a focus on rights and voice forces the project to consider micro-level aspects of 'information' or 'ICT' inclusion and exclusion as it relates to the poorest, but also macro-level aspects connected to the realization of rights and to 'enabling' policy and legislative frameworks and initiatives (Skuse et al., 2007: 28).

The large part of the *communication used* in the development and implementation of the Finding a Voice project was participatory communication for social change, which blended an interactive dialogic process with local community members and others with technological expertise designed to meet the specific needs of the community, while also addressing broader media development and digital inclusion issues.

The *channels* chosen ran a diverse gamut that was relevant to the needs of each community. All of the initiatives employed face-to-face interactive dialogue, and almost all of them addressed cultural and gender issues – for example, many locals acknowledged

that it was easier for men to have access to new media technology and information since they controlled the money to pay for use of the technologies at the centers. They also work outside of the home, while the majority of women work in the home, and so were able to access the technologies with greater frequency. Finding a Voice was diligent about emphasizing the fact that 'voice' is bound up within traditional hierarchies, such as caste, class, gender, and age, and that ICT initiatives and the multimedia content that is produced or facilitated through them must work through such hierarchies if 'voices' are to be heard (Skuse et al., 2007: 27). Almost all of the initiatives employed ICT projects, the majority of which focused on computer information centers that offered training on how to use the Internet for education and income generation. Two initiatives focused on building community radio stations in rural Nepal and India, and another focused on creating local content for a cable TV show, also in rural Nepal.

The *methods* used in the Finding a Voice project were qualitative. Interviews with local men and women appear to be the primary source of information gathering, as well as extensive research regarding the political, social, and cultural infrastructures already in place. This was used to help determine both the needs of the community and to indicate how they would most benefit from the ICT initiative.

Our last indicator is perhaps the most important with regard to determining the sustainability of the Finding a Voice project. Although it can be said that '*the message*' (i.e. the ICT initiatives) was developed by and for the communities, it is difficult to discern whether or not the communities thought they needed these ICT technologies before the project began. All available research seems to indicate that the project was well received by the community, however there is to date no research regarding if and how the ICT initiatives are currently being used. This seems to be particularly important for determining sustainability, since the project itself officially ended more than three years ago. Further research could explore whether literacy and health education has in fact increased in the areas where people have access to the computer centers. Have more people been able to find jobs using the resources available to them over the Internet? In what ways have the radio and television shows contributed to underrepresented people's voices being heard? Has legislation and policy changed regarding how these initiatives can continue? Research that takes into account the long-term impacts and implications of such projects would aid considerably in increasing the validity of the results of the indicators when tested for sustainability.

Conclusion

This article has argued that while no universal definition for sustainability is currently agreed upon, common themes concerning the maintenance of ecological balance, a move away from environmentally unfriendly modernization, and an emphasis on local systems that shift from solely Western-led development and focus on local culture and participation are crucial to an understanding of sustainable development. Therefore, we have argued that the concept of sustainability is a multi-layered process that takes into account the ecological and environmental balance of local systems. While there is no universal definition of the term, a strong focus on local culture and participation are crucial to an understanding of sustainable development. We have also argued that there is an urgent

need to incorporate sustainability indicators into CDSC projects. Sustainable projects create lasting change within institutions, and communities. Grounded in the literature surrounding various prospective interpretations of sustainability, we created a framework composed of categories and indicators for evaluating the sustainability of specific projects. The concept behind this framework is a working model that allows for a flexible interpretation of sustainability and the components supporting it. Projects, and their institutions, have varied objectives and methods for achieving their goals. Therefore, it is fundamental to create a tool that allows for the diversity (cultural, social, economic) of projects while still being able to evaluate their sustainability.

After testing the Sierra Leone HSRDP and the Finding a Voice project, we were able to get a better sense of the applicability of the sustainability indicators. Between these projects, parallels and differentiations were detected, in some cases indicating increased sustainability of a project in a specific area. One such area was the actors. An important component of creating sustainable projects is the inclusion of the community, a concept integrated into Finding a Voice, but less highlighted in the Sierra Leone project. Directly related to this are the channels and process utilized by the projects. Sierra Leone sought to use radio and television as channels of communication. However, the project neglected to consider the cost of this method from the point of view of the community members.

Similarly, in terms of the type of communication utilized, both the Sierra Leone and Finding a Voice projects employed expert-led communication strategies in order to train their respective communities. One issue with the Sierra Leone project was while the main strategy used was advocacy – for example, training health sector workers how to appropriately implement new health practices like the disposal of health-related waste – there was no information on follow-up procedures beyond advocacy and how to involve the local community. Similarly, with the Finding a Voice project, there was no information available on the impact of the ICT and new media centers on the communities once they were implemented. Did access to the Internet help to decrease poverty? Were the radio shows successful in raising awareness around local issues?

In both projects there is a great need for the establishment and implementation of better long-term follow-up plans. Sustainability requires continuous and long-term evaluation and monitoring. However, in comparing the two projects, Sierra Leone did a better job implementing an area for evaluation and monitoring. The project collected baseline health data for Sierra Leone, for example immunization coverage, and noted that the evaluator will compare the outcomes with the baseline to find whether progress is being made.

Overall, it was agreed that more first hand information and experience with the projects would lead to an increased ability to analyze a project with our framework. Both projects contain promises of sustainability, but we have concluded that the true sustainability of the project is determined by its ability to successfully involve the local community in the translation of its aims and goals into practices whose positive impacts are not only felt in the community, but in the opportunities available for members to measure and evaluate it as well.

This is because we believe that successful strategies for sustainable development must be relative to each society and culture. Therefore, we remain firm in our conclusion that *the scope and degree of sustainability must be studied in relationship with the local concept of development contingent upon the cultural values of each community.*

References

- Amin S (2006) The Millennium Development Goals: A critique from the south. *Monthly Review* 57(10). Available at: www.monthlyreview.org/0306amin.htm.
- Anyaegbunam C, Mefalopulos P and Moetsabi T (2004) *Participatory Rural Communication Appraisal: Starting with the People*. Rome: Food and Agriculture Organization of the United Nations (FAO). Available at: www.fao.org/sd/dim_kn1/docs/y5793e00.pdf.
- Bamberger M (2009) *Institutionalizing Impact Evaluation within the Framework of a Monitoring and Evaluation System*. Washington, DC: World Bank.
- Bamberger M, Rao V and Woolcock M (2010) *Using Mixed Methods in Monitoring and Evaluation: Experiences from International Development*. Manchester: The World Bank Development Research Group.
- Becker DR (2002) *A Participatory Approach to Social Impact Assessment: The Interactive Community Forum*. Boise: PhD College of Graduate Studies, University of Idaho.
- Bennett F and Roche C (2000) Developing indicators: The scope for participatory approaches. *New Economy* 4: 24–28.
- Blattman C (2008) MDGS: Planning for failure. Available at: chrisblattman.com/2008/02/11/mdgs-planning-for-failure/.
- Booth D and Lucas H (2002) *Good Practice in the Development of PRSP Indicators and Monitoring Systems*. London: Overseas Development Institute.
- Burgess J (2010) *Evaluating the Evaluators: Media Freedom Indexes and What They Measure*. Washington, DC: National Endowment for Democracy.
- Byrne A (2008) Working toward evidence-based process: Evaluation that matters. Available at: www.communicationforsocialchange.org/mazi-article (accessed 12 November 2010).
- Byrne A, Gray-Felder D, Hunt J and Parks W (2005) *Measuring Change: A Guide to Participatory Monitoring and Evaluation of Communication for Social Change*. Orange, NJ: Communication for Social Change Consortium. Available at: www.communicationforsocialchange.org/publications-resources.php?id=282.
- Catley A, Burns J, Abebe D and Suji O (2007) *Participatory Impact Assessment: A Guide for Practitioners*. Medford, MA: Feinstein International Centre, Tufts University.
- C-Change (2010) A learning package for social and behavior change communication (SBCC). Available at: www.c-changeprogram.org.
- Chambers R (2008) *Revolutions in Development Inquiry*. London: Earthscan.
- Chen G-J (2001) Sustainable development facing challenges in 21st century. *Chinese Geographical Science* 11(4): 289–293.
- Danida (2005) *Monitoring and Indicators for Communication for Development*, ed. Service TA. Copenhagen: Royal Danish Ministry of Foreign Affairs. Available at: webzone.k3.mah.se/projects/comdev/_comdev_PDF_doc/Danida_ComDevt.pdf.
- De Cuéllar JP (1995) *Our Creative Diversity: Report of the World Commission on Culture and Development*. Paris: UNESCO.
- Elliott J (1994) *An Introduction to Sustainable Development*. London: Routledge.
- Estrella M (ed.) (2000) *Learning from Change: Issues and Experiences in Participatory Monitoring and Evaluation*. London: Intermediate Technology Publications. Available at: www.idrc.ca/openbooks/895-3/#page_201.

- FAO (2003) *Education for Rural Development: An Agenda for Action*. January. Rome: Food and Agriculture Organization of the United Nations. Available at: www.fao.org/sd/2003/kn0202_en.htm.
- FAO (2009) *Virtual Change Indicators for Assessing the Impact of ICTs in Development*. Rome: Food and Agriculture Organization of the United Nations.
- Figuerola ME, Kincaid D, Lawrence RM and Lewis G (2002) *Communication for Social Change: An Integrated Model for Measuring the Process and its Outcomes*. Communication for Social Change Working Paper Series, No. 1. New York: The Rockefeller Foundation.
- Fowler A (2003) *International Development Frameworks, Policies, Priorities and Implications: A Basic Guide for NGOs*. Quebec: Oxfam Canada/DLR International.
- Gawor L (2008) Globalization and its alternatives: Antiglobalism, alterglobalism and the idea of sustainable development. *Sustainable Development* 16: 126–134.
- Gosling L and Edwards M (2003) Impact assessment. In: Gosling L and Edwards M (eds) *Toolkits: A Practical Guide to Monitoring, Evaluation, Impact Assessment*. London: Save the Children Fund, pp. 125–142.
- Guijt I and Sidersky P (1996) Agreeing on indicators. *ILEIA Newsletter* 12: 9–11.
- Hass L, Mazzei L and O'Leary D (2007) *Setting Standards for Communication and Governance: The Example of Infrastructure Projects*. World Bank Working Paper No. 121. Washington, DC: World Bank.
- Held D and McGrew A (2007) *Globalization/Anti-Globalization: Beyond the Great Divide*, 2nd edn. London: Polity.
- Holte-McKenzie M, Forde S et al. (2006) Development of a participatory monitoring and evaluation strategy. *Evaluation and Program Planning* 29: 365–376.
- Horbach J (2005) *Methodological Aspects of an Indicator System for Sustainable Innovation*, Sustainability and Innovation book series. Heidelberg: Physica-Verlag HD.
- Hospes O (2008) Evaluation evolution? *The Broker* 8 (June): 24–26. Available at: www.thebrokeronline.eu.
- Hull Z (2008) Sustainable development: Premises, understanding and prospects. *Sustainable Development* 16: 3–80.
- Inagaki N (2007) *Communicating the Impact of Communication for Development: Recent Trends in Empirical Research*. Working Paper Series, Development Communication Division. Washington, DC: World Bank.
- IPDC (2008) *Media Development Indicators: A Framework for Accessing Media Development*. Paris: UNESCO.
- Johannesburg Summit (2002) 26 August – 4 September. Available at: www.un.org/jsummit/html/basic_info/basicinfo.html (accessed 1 October 2009).
- Khampa (2009) *Participatory development communication and people's happiness in a Bhutanese community*. MA Thesis, Graduate School of Bangkok University, Thailand.
- Lennie J and Tacchi J (2010) *Evaluating Communication for Development: Trends, Challenges and Approaches. Draft Report on a Literature Review and Consultations Conducted for the Project: UN Inter-agency Research, Monitoring and Evaluation Resource Pack for Communication for Development Programs*. 3 December. New York: UNICEF.
- Mannberg M and Wihlborg E (2008) Communicative planning- friend or foe? Obstacles and opportunities for implementing sustainable development locally. *Sustainable Development* 16: 35–43.

- Millennium Development Goals Report (2009) New York: UN. Available at: www.un.org/millenniumgoals/pdf/MDG_Report_2009_ENG.pdf (accessed 1 October 2009).
- Mitchell P and Chaman-Ruiz K (2007) *Communication-Based Assessment for Bank Operations*. World Bank Working Paper No. 119. Washington, DC: World Bank.
- MOHS (Ministry of Health and Sanitation) (2002) *Sierra Leone*. Report No. PID10711, World Bank Reports and Documents, November. Washington, DC: World Bank.
- Nerfin M (ed.) (1977) *Another Development: Approaches and Strategies*. Uppsala: Dag Hammarskjöld Foundation.
- Nyamu-Musembi C and Cornwall A (2004) *What is the 'Rights-Based Approach' All About? Perspectives from International Development Agencies*. IDS Working Paper 234. Brighton: Institute of Development Studies.
- Offenheiser RC and Holcombe S (2001) Challenges and opportunities of implementing a rights-based approach to development: An Oxfam America perspective. In: *Conference on Northern Relief and Development NGOs: New Directions in Poverty Alleviation and Global Leadership Transitions*, 2–4 July. Oxford: Balliol College.
- O'Sullivan GA, Yonkler JA, Morgan W and Merritt AP (2003) *A Field Guide to Designing a Health Communication Strategy*. Baltimore, MD: Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs. Available at: www.jhuccp.org/node/1033om.
- Parks W, Gray-Felder D, Hunt J and Byrne A (2005) *Who Measures Change? An Introduction to Participatory Monitoring and Evaluation for Communication for Social Change*. Orange, NJ: CFSC Consortium.
- Payutto P (1998) *Sustainable Development*. Bangkok: Buddhadham Foundation.
- Puddephatt A (2007) *Defining Indicators of Media Development*. Background paper. Paris: IPDC and UNESCO.
- Puddephatt A, Horsewell R and Menheneott G (2009) Discussion paper on the monitoring and evaluation of UN-assisted communication for development programmes: Recommendations for best practice methodologies and indicators. In: *11th UN Inter-Agency Round Table on Communication for Development*, 11–13 March. Washington, DC: UNDP/World Bank.
- Reardon C (2003) *Talking Cure: A Case Study in Communication for Social Change*. Working Paper Series. Orange, NJ: Communication for Social Change.
- Regeer B, Hoes A, Sanne M, Caron-Flinterman F and Bunders J (2009) Six guiding principles for evaluating mode-2 strategies for sustainable development. *American Journal of Evaluation* 30(4): 515–537.
- Reynolds GJ and Tommy J (2002) *Environmental Assessment Final Report of the Health Sector Reconstruction and Development Project for Republic of Sierra Leone*. Report No. E1630, World Bank Reports and Documents, 29 October. Washington, DC: World Bank.
- Rockefeller Foundation (1999) *Communication for Social Change: A Position Paper and Conference Report*. New York: Rockefeller Foundation.
- Rockefeller Foundation (2002) *Pocantico Statement on the Need for National Indicators of Sustainability for the United States of America*. New York: Rockefeller Foundation.
- Salas MA and Tillmann H (2010) *Participatory Action Research: Embracing the Knowledge Perspective within Field Research*. Chiang Mai: Regional Center for Social Science and Sustainable Development.
- Servaes J (1999) *Communication for Development: One World, Multiple Cultures*. Cresskill, NJ: Hampton Press.

- Servaes J (2007) Harnessing the UN system into a common approach on communication for development. *International Communication Gazette* 69(6): 483–507
- Servaes J (2009) Communication policies, good governance and development journalism. *Communicatio: South African Journal for Communication Theory and Research* 35(1): 50–80.
- Servaes J and Malikhao P (2007) Communication and sustainable development. In: Servaes J and Liu S (eds) *Moving Targets*. Penang: Southbound.
- Shah A (2005) Sustainable development introduction. Available at: www.globalissues.org (accessed 1 October 2009).
- Sivaraksa S (2010) *The Wisdom of Sustainability. Buddhist Economics for the 21st Century*. Chiang Mai: Silkworm Books.
- Skowrowski A (2008) A civilization based on sustainable development: Its limits and prospects. *Sustainable Development* 16: 117–125.
- Skuse A and Power F (2005) *AIDS Communication*. London: Department of International Development.
- Skuse A, Fildes J, Tacchi J et al. (2007) *Poverty and Digital Inclusion: Preliminary Findings of Finding a Voice*. Paris: UNESCO.
- Solervicens M (ed.) (2007) *Community Radio Social Impact Assessment: Removing Barriers. Increasing Effectiveness*. Ottawa: World Association of Community Radio Broadcasters (AMARC).
- Supadhiloke B (2010) Synergy of ‘Gross National Happiness’ and sufficiency economy as an imperative paradigm for communication and sustainable social change. In: *Future Imperatives on Communication and Information for Development and Social Change*, 20–22 December, Bangkok.
- Tacchi J, Slater D and Hearn G (2003) *EAR: Ethnographic Action Research Training Handbook*. Paris: UNESCO. Available at: ear.findingavoice.org/intro/index.html (accessed 29 November 2009).
- Thanh HX (ed.) (2010) *Participatory Poverty Monitoring in Rural Communities in Vietnam*. London: Oxfam.
- Tommy J (2002) *Sierra Leone HIV/AIDS Response Project (SHARP) and Health Sector Reconstruction Development Project (HSRDP) Waste Management Plan*. Report No. E643, World Bank Reports and Documents, October. Washington, DC: World Bank.
- Tremblay S (ed.) (2007) *Developpement durable et communications. Au-dela des mots, pour un veritable engagement*. Quebec: Presses de l’Universite du Quebec.
- UN (1983) Process of preparation of the environmental perspective to the year 2000 and beyond. General Assembly Resolution 38/161, 19 December.
- UN (2008) *Achieving Sustainable Development and Promoting Development Cooperation*. New York: United Nations.
- UNAIDS (2000) *National AIDS Programmes: A Guide to Monitoring and Evaluating*. Geneva: World Health Organisation. Available at: www.who.int/hiv/pub/me/pubnap/en.
- UNDP (2004) *Human Development Report 2003. Cultural Liberty in Today’s Diverse World*. New York: Oxford University Press.
- UNDP (2010) *Human Development Report: The Real Wealth of Nations: Pathways to Human Development*. New York: UNDP.
- UNDP and World Bank (2009) Discussion paper on the monitoring and evaluation of UN-assisted communication for development programmes. In: *11th UN Inter-Agency Round Table on Communication for Development*, February, Washington, DC.

- UNESCO (2008a) *Media Development Indicators: A Framework for Assessing Media Development*. Paris: UNESCO. Available at: unesdoc.unesco.org/images/0016/001631/163102e.pdf.
- UNESCO (2008b) Sustainable development: An evolving concept. *Education for Sustainable Development Brief*. Paris: UNESCO.
- UNICEF (2008) Essentials for excellence: Research, monitoring and evaluating strategic communication for behaviour and social change with special reference to the prevention and control of avian influenza/pandemic influenza. Suva, Fiji, UNICEF Pacific Office. Available at: www.unicef.org/cbsc/files/Essentials_for_excellence.pdf.
- UNICEF (2010) *United Nations Inter-Agency and Experts' Consultation on Research, Monitoring and Evaluation in Communication for Development*. 7–9 December. New York: UNICEF.
- Van Hemelrijck A (2009) *LEAD Measurement Note on Empowerment in Rights-Based Programming. Implications for the Work of Oxfam America*. Boston, MA: Oxfam.
- Webb D and Elliott L (2002) *Learning to Live: Monitoring and Evaluating HIV/AIDS Programmes for Young People*. London: Save the Children Fund. Available at: [www.reliefweb.int/rw/lib.nsf/db900sid/LHON-64LK6C/\\$file/SaveTheChildren_AIDS_ME_January_2002.pdf?openelement](http://www.reliefweb.int/rw/lib.nsf/db900sid/LHON-64LK6C/$file/SaveTheChildren_AIDS_ME_January_2002.pdf?openelement).
- Whaley D, Weaver L and Born P (2010) *Approaches to Measuring: Community Change Indicators*. Waterloo, ON: Tamarack. Available at: www.tamarackcommunity.ca.
- WHO (2004) *National AIDS Programmes: A Guide to Monitoring and Evaluating National HIV/AIDS Prevention Programmes for Young People*. Geneva: WHO.
- Wilson M (2007) *At the Heart of Change: The Role of Communication in Sustainable Development*. London: Panos.
- World Bank (2003) *Project Appraisal Document on a Proposed Grant in the Amount of SDR 15.1 Million (US\$ 20 Million Equivalent) to the Republic of Sierra Leone for a Health Sector Reconstruction and Development Project*. Report No: 24217-SL, World Bank Reports and Documents, January. Washington, DC: World Bank.
- World Bank (2007) *Project Paper on a Proposed Additional Financing Grant in the Amount of SDR 5.3 Million to the Republic of Sierra Leone Andona Project Restructuring for the Health Sector Reconstruction and Development Project*. Report No. 38769-SL, World Bank Reports and Documents, 19 April. Washington, DC: World Bank. Available at: www.idrc.ca/uploads/user-S/11592105581icd-guidelines.pdf.
- World Commission on Environment and Development (1987) *Our Common Future*. Published as Annex to General Assembly document A/42/427, Development and International Co-operation: Environment. New York: United Nations.